Local Initiatives

Dallas-Fort Worth Photochemical Meeting

July 16, 2019
Local Initiatives

Summary and Purpose

Voluntary local transportation strategies in the Dallas-Fort Worth area expected to be implemented by 2020

Provide air quality benefits to the on-road mobile sector

Appendix H of State Implementation Plan: Local Initiatives Submitted by the North Central Texas Council of Governments

• Benefits not credited in State Implementation Plan

Submitted to TCEQ April 2019
Local Initiatives

Air Quality Programs
Local Initiatives

Air Quality Public Education and Communication

Communication efforts strategically created and implemented to educate and inform the region on:

- Current air quality levels and associated impacts
- Funding opportunities
- New programs and/or policies

Air North Texas Coalition

- Created in 2007
- Strives to create a unified message and brand related to air quality with regional partners
- Teaches local governments and the general public about health impacts of emissions and encourages the use of voluntary measures that help reduce emissions such as:
  - Vehicle maintenance
  - Combining errands
  - Ridesharing
  - Reducing idling
  - Promoting existing NCTCOG emission reduction programs, like TryParkingIt.com, Engine Off North Texas, and Regional Smoking Vehicle Program (RSVP)

- Air pollution alerts
- Clean Air Action Day

www.airnorthtexas.org
Provides outreach, education, training, and technical assistance to improve efficiency of vehicle operations

- Fleet operations primary focus of DFWCC activities with some general consumer engagement
- Focus of efficiencies includes:
  - Use of alternative vehicles
  - Idle reduction technologies
  - Fuel economy strategies
  - Operational efficiencies
    - Reduce fleet emissions
    - Conserve fuel
    - Lower operating costs

Activities:
- Development of region-specific newsletter and outreach/educational materials
- Integration of national resources from the Department of Energy and national lab partners
- Participation and presentations at community, environmental, and fleet-oriented events
- Face-to-face meetings, webinars, workshops/events, and trainings
- Customized technical assistance to fleets & fleet recognition program

[Website Link: www.DFWcleancities.org]
Clean Fleet Policy
Approved by the Regional Transportation Council December 2014
Sets guidelines for efficient fleet operations

- Elements include:
  - Emissions reductions
  - Fuel conservation
  - Partnership with NCTCOG and the Dallas-Fort Worth Clean Cities Coalition
  - Driver/operator education
  - Requirement to adopt an idle-reduction policy or standard operating procedure

As of March 2019, 69 entities have adopted the Clean Fleet Policy
- Local governments
- School districts and colleges
- Airports
- Delivery companies
- Etc.

www.nctcog.org/trans/quality/air/for-fleets/clean-fleet-policy
Clean Construction Demonstration Project

Clean Construction Specification

• Establishes emissions-based requirements for equipment
• Requires certain operational practices such as:
  • Limits on idling
• Template language has been added to the NCTCOG Public Works Construction Standards North Central Texas, Fifth Edition, as Item 110, Air Quality Requirement for Equipment
• Approved by NCTCOG Executive Board October 2017
• Widely used by NCTCOG local governments as starting point for local government construction contracts
• Encourage local governments to integrate language in new construction

www.nctcog.org/trans/quality/air/for-government/construction-fleets
Local Initiatives

Saving Money and Reducing Truck Emissions (SMARTE)

Aims to improve awareness of freight traffic effects on air quality, promote the use of SmartWay-verified technologies, and encourage industry-specific best practices in the freight industry

- Focus on idle reduction
- Emission reduction
- Fuel saving strategies in the heavy-duty trucking industry
- Educate drivers and fleet managers through public interaction and engagement in the field to ensure large audience is reached
- SMARTE representatives provide:
  - Informational materials on a variety of NCTCOG initiatives suitable for the trucking industry
  - Clean Fleet Policy
  - Environmental Protection Agency (EPA) SmartWay Transport Partnership
  - SmartWay-verified technologies
  - Information on relevant funding opportunities on financial assistance with obtaining capital-intensive items

www.nctcog.org/trans/quality/air/for-fleets/smarte
Local Initiatives

SmartWay Transport Project

Voluntary public-private partnership with the ground freight industry designed to reduce emissions, reduce fuel consumption, and increase energy efficiency among the freight transportation sector

Established in 2004

NCTCOG joined the SmartWay Transport Partnership as an Affiliate in 2006
• Committed to outreach and education efforts related to the program in the DFW area
• Pursue opportunities to implement projects that increase use of verified SmartWay technologies, including idle reduction and fuel saving activities

Achievements:
• Subgranted $1.4 million to six sector companies to purchase and install SmarWay technologies on:
  • APU’s for 73 trucks
  • Low rolling resistance tires for 77 tractors and 69 trailers
  • Trailer skirts for 185 trailers
  • Cetane enhancers for at least 100 trucks

www.nctcog.org/trans/quality/air/for-fleets/smartway
Local Initiatives

Electric Vehicles North Texas
Coordinates efforts to increase awareness and adoption of electric vehicles and promote local government initiatives that facilitate adoption

Stakeholders:
• Utility companies
• Fleets
• Local businesses
• EV manufacturers
• Infrastructure producers
• Interest groups

DFW area target market for early deployment
• Over 300 public access recharging facilities
  • Federal Highway Administration designated every major interstate passing through DFW area as either EV-ready or EV-pending due to amount of infrastructure available
• Nearly 10,000 EVs registered in the DFW area

Ongoing work
• Develop consumer awareness materials and outreach, fostering partnerships and education with vehicle dealers, promote workplace charging, guidance on local government policies that can impact EV market penetration, and

www.dfwcleancities.org/evnt
Local Initiatives

Engine off North Texas
Designed to reduce emissions by reducing vehicle idling

Efforts focus on:
• Improving public awareness of idle-reduction technologies
• Enhancing awareness of regulatory options and campaign strategies organizations can use to reduce idling from various vehicle types
• Educating local governments of the State Idling Rule
  • 30 entities (4 counties and 26 municipalities) have adopted Local Enforced Idling Restrictions covering 50 percent of the region
• Promoting idling restrictions:
  • Adoption
  • Education
  • Enforcement

www.nctcog.org/trans/quality/air/for-everyone/engine-off-north-texas
Local Initiatives

High-Emitting Vehicle Program
Conducts regional programs to reduce emissions from on-road mobile sources

North Texas Car Care Clinics
• Aid motorists in understanding basics of how to care for a car
• Partners with automotive repair shops to host Car Care Clinics
• Focus is on working with repair facilities to address check engine light issues and identifying the cause

Regional Emissions Enforcement Program
• Helps identify and remove high-emitting vehicles from roadways with counterfeit, expired, fictitious, fraudulent, improper state emissions inspections
• Conducts covert operations on state vehicle emissions inspection stations to identify and prosecute inspectors performing improper inspections, finding and prosecuting dealers and manufacturers of fictitious inspection reports, investigating civil litigation against car dealers selling improperly inspected vehicles
• NCTCOG Emissions Database (NED) developed to allow law enforcement 24/7 access

Regional Smoking Vehicle Program
• Encourages North Texans to voluntarily maintain and repair their vehicles and promote awareness regarding harmful emissions caused by smoking vehicles

www.nctcog.org/trans/quality/air/for-everyone/hevp
Local Initiatives

Solar

Adoption of solar technologies is the key to avoiding increases in harmful emissions resulting from electric generating units in the face of a growing population

Projects:

• Solar Ready II
  • In 2013 and 2014 participated in the U.S. Department of Energy’s Solar Ready II program by partnering with the National Association of Regional Councils, the Mid-America Regional Council, and Meister Consultants Group
  • Worked with local governments and interested parties to implement best management practices and provide training for solar energy in the DFW region
  • The goal of this project was to improve the DFW solar market by providing a more streamlined and standardized solar process

• SolSmart
  • Conducted outreach to local governments about solar Best Management Practices
  • Developed template regional materials related to permitting and zoning ordinances
  • Hosted trainings for first responders, inspectors, permitting officials, and other staff to increase local governments’ comfort with solar

Achievements:

• Assisted six municipalities in the DFW area in receiving SolSmart designation
Local Initiatives

Transportation Systems Management
Local Initiatives

Freeway and Arterial Bottleneck Removal
Low cost, quickly implementable solutions to improve locations of isolated congestion
• Restriping merging or diverging areas

Grade Separation Projects
Idling time eliminated by separating a road or railroad track from crossroad
• 98 locations in the 10-county nonattainment area

Intersection Improvements
Left and/or right turn lanes
• 1,351 locations in the 10-county nonattainment area

Traffic Signal Improvements
Signal retiming and coordination
• 1,118 potential locations in the 10-county nonattainment area
Intelligent Transportation System

Improves traffic speeds and reduces idling time through advanced traffic control systems and more efficient incident and corridor management.

Combines the strengths of regional transportation planning models and traffic simulation models with overall transportation management strategies.

Examples:
- Transportation management centers
- Dynamic message signs
- Vehicle detectors
- Integration of systems
- Closed-circuit television cameras

Benefits:
- Transportation system capacity increases
- Overall efficiency of entire transportation system enhances
- Fuel savings
- Air pollution reduction
- Safer streets and highways
- Reductions in maintenance costs

www.nctcog.org/trans/manage/its
Local Initiatives

Transportation Safety Program
Focuses on improving traffic safety throughout the region by supporting planning efforts to develop safety policies, programs, and projects

Traffic Incident Management Program
• For emergency responders
• Helps initiate a common, coordinated response to traffic incidents
  • Build partnerships
  • Enhance safety for emergency personnel
  • Reduce upstream traffic crashes
  • Improve the efficiency of the transportation system
  • Improve air quality in the region

Regional Mobility Assistance Patrol Program
• Operates on congested corridors
• Improve roadway safety
• Reduces non-recurrent congestion due to crashes

www.nctcog.org/trans/quality/safety/transportation-safety
Local Initiatives

Truck Lane Restriction Program

Pilot study to improve operational efficiency and highway safety to study effects of restricting trucks with three or more axles from using the left lane on controlled access, state-system facilities with three or more lanes in each direction.

Results:

• Implementation on segments of IH 20 and IH 30 in DFW from August 2005 through January 2006
• Restrictions effectively controlled trucks from using the left lane
• Slight reduction in truck speeds
• Increased safety by reducing truck versus car conflicts
• Reducing air quality emissions

All eligible corridors without truck lane restrictions within the state have the restrictions implemented where appropriate and feasible (TxDOT)

• Once full implementation of corridors is complete, there will be a total of 513 miles of truck lane restrictions within the DFW region

www.nctcog.org/trans/plan/freight/truck-lane-restrictions
Local Initiatives

Travel Demand Management
Local Initiatives

Congestion Management Process

Regionally accepted approach for managing congestion that provides accurate, up-to-date information on multimodal transportation performance and assesses alternative strategies for mitigating congestion that meets local needs

Required in urbanized areas of over 200,000

Provides for the effective management of operational and existing travel demand strategies
- Providing information to decision makers on system performance and the effectiveness of implemented strategies

Develops lower cost strategies that complement capital investment recommendations

Results:
- More efficient and effective transportation systems
- Increased mobility
- Leveraging of resources

www.nctcog.org/trans/transport/congestion-management-process
Local Initiatives

Park-and-Ride Projects

Promote carpooling and vanpooling

- 29,575 parking spaces contained in Park-and-Ride projects that are complete and open to the public

Vanpool Projects

Regional Vanpool Program

- 6-15 commuters who
  - Travel to and from same area
  - Have similar work hours
  - Share costs of operating the van
  - Usually meet at a centralized location

- Benefits:
  - Reduce air pollution
  - Reduce traffic congestion
  - Help conserve fuel

- Includes 286 vanpools serving 10-county nonattainment area
- Operated by Dallas Area Rapid Transit (DART), Denton County Transportation Authority (DCTA), and Trinity Metro

www.nctcog.org/trans/manage/tdm/regional-vanpool-program
Local Initiatives

High Occupancy Vehicle/Managed Lanes

Promote carpooling
- Remove single occupancy vehicles

DFW region
- 600 total lane miles in the 10-county nonattainment area
Local Initiatives

Public Transportation Projects

Implementation of new or expanded transit services or facilities

Improved transit main components:
• System/service expansion projects
• System/service operational improvements
• Inducements

Benefits:
• Increase opportunity for new passengers
• Increase in air quality benefits
• Relieve congestion on roadways

Projects:
• Including existing and future rail transit projects, over 400 miles of rail are in the 10-county nonattainment area
• 15 public transportation providers operate service within the 10-county nonattainment area providing over 70 million trips
Local Initiatives

Bicycle/Pedestrian Projects

Create and/or enhance bicycle/pedestrian:
• Pathways
• Sidewalks
• On-street bikeways

Extend and complete region’s roadway and passenger rail transit network
• Link individuals to alternative methods of transportation other than driving
• Remove automobile emissions that would otherwise be released

Regional Veloweb and Community Paths
• Designed for use by bicyclists, pedestrians, and other non-motorized forms of active transportation
• On-street bikeways
• 1,883 miles of regional veloweb

www.nctcog.org/trans/plan/bikeped
Local Initiatives

Sustainable Development

Promotion of livable communities supporting sustainability and economic vitality
Utilized as a tool to help meet the coordination between land use, transportation, and improvement of air quality
Program created by the Regional Transportation Council to encourage public/private partnerships positively addressing existing transportation system capacity, rail access, air quality concerns, and/or mixed land uses

• Strategies:
  • Respond to local initiatives for town centers, mixed-use growth centers, transit-oriented developments, infill/brownfield developments, and pedestrian-oriented projects
  • Complement rail investments with coordinated investments in park and ride, and bicycle and pedestrian facilities
  • Reduce the growth of vehicle miles travel per person
• Four Calls for Projects were conducted in 2001, 2005-2006, 2009-2010, and 2017
  • $241 million was programmed which includes $178 million of direct funds plus matching funds of $63 million from local governments to 106 projects:
    • Funded projects include infrastructure, landbanking and planning projects
    • Promote efficient school siting and multimodal transportation connections
    • Technical assistance to various cities and funded sidewalks connecting school locations

www.nctcog.org/trans/plan/land-use
Local Initiatives

Others
Local Initiatives

Automated Vehicles (AV) and Related Technologies

Advancing vehicle technology solutions that may reduce air quality emissions

- Strategies:
  - Developed on an electric vehicle platform
  - Shared vehicle use model under which fleets of AVs operating many hours each day serve a substantial portion of a city’s mobility needs
  - Potential to reduce the number of vehicles required for surface mobility
  - Environmental benefits such as reducing the amount of land and built structures to provide parking and other services to privately owner vehicles
  - Worked with local cities to:
    - Make traffic signal data accessible to the developer community to power connected vehicle applications that optimize traffic flow
    - Utilize roadway incident reports and traffic speed data accessible through the Waze Connected Citizens Program to optimize traffic signal timing, provide improved information to travel navigation services to steer vehicles around road closures, and more efficiently target pothole repair

www.nctcog.org/trans/plan/vehicles/auto
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